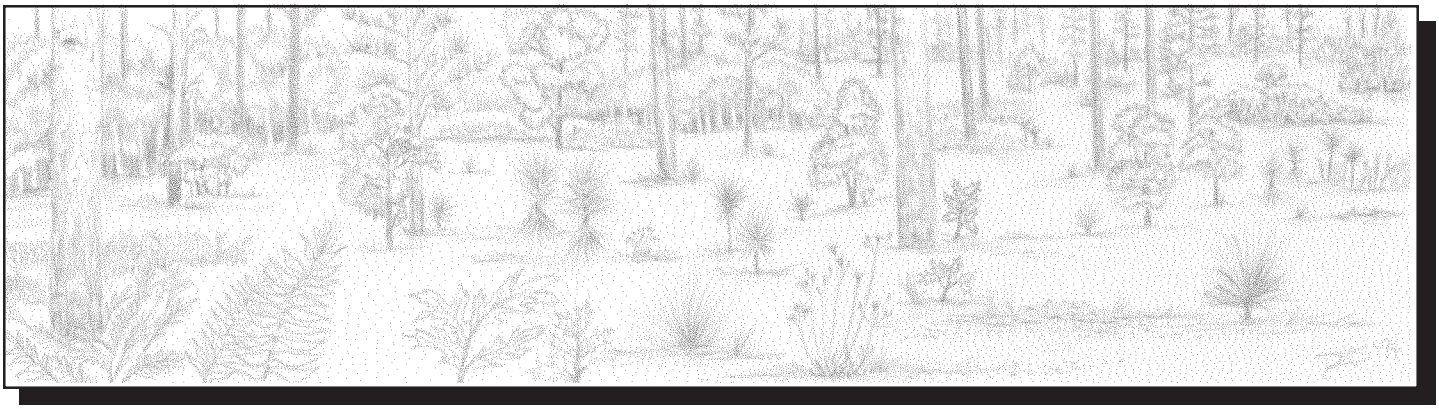
Natural Heritage Resources Fact Sheet

Virginia's Rare Natural Environments

Turkey Oak Sandhills

Description

Sandhills are distinctive natural communities which occur on well drained, sandy soils primarily in the southeastern coastal plain from Virginia southward. Where they are found, they are characterized by abundant sand and scattered trees. Well-drained soils set up dry, nutrient-poor growing conditions on a sandhill. The dominant trees are species of pine and oak while understory plants generally consist of shrubby plants with an occasional patch of herbaceous vegetation and lichens. Longleaf pine and turkey oak are the dominant trees which characterize sandhills in Virginia. These sandhills resemble their counterparts in the Carolinas with some slight differences. Frequent, low-intensity fires were common in Virginia sandhills as a means of maintaining the vegetation, although in recent years fires have been suppressed or controlled for safety considerations. Human disturbance, in conjunction with the suppression of natural fires, has altered these communities to a great extent.



Turkey Oak Sandhill Community

Distribution

There is evidence that longleaf pine and turkey oak were more common in Virginia before human settlement. However, lumbering and agricultural development over the past 250 years have taken their toll on sandhill communities. In Virginia, the best remaining examples of turkey oak sandhills are found in Isle of Wight County. Sandhill communities are also found in Southampton County and Suffolk.

Flora and Fauna

The turkey oak sandhills of Virginia support a number of rare plant and animal species, some of which are at the northern limit of their range. Locally, layers of clay beneath the sand trap water and allow rare blue jack oak and longleaf pine to survive. In addition, these areas contain rare shrubby and herbaceous vegetation such as sandy-woods chaffhead, creeping blueberry, October-flower, and flowering pixie-moss.

Noteworthy animal species which inhabit Virginia sandhill communities include southeastern crowned snakes, rare tiger beetles, and numerous butterfly and moth species, including a moth that feeds specifically on pixie-moss. With some clearing of the undergrowth, this area would be excellent potential habitat for the federally endangered red-cockaded woodpecker.

Threats

Turkey oak sandhills are one of the most endangered ecosystems in Virginia. Without regular fires to remove the buildup of shrubby, understory vegetation, common tree species would be able to thrive and replace the longleaf pine and turkey oak. The most effective means of maintaining the community is by regular prescribed burns to curb the growth of encroaching vegetation. Many of the plants in this community type, such as the longleaf pine, require fire for successful reproduction. In addition, disturbance of surrounding lands can have an impact on sandhills. In particular, construction of houses near the community could limit the frequency and extent

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of burning allowed in the area. Sand mining and ditching can affect the natural flow of water to the site disrupting the natural cycling of water and nutrients, and influencing the species of plants that are present. Finally, clearcutting a sandhill community permits the growth of common loblolly pines and is an ongoing, serious threat.

Protection

The only currently protected tract of turkey oak sandhill in Virginia is found in the Blackwater Ecologic Preserve in Isle of Wight County. Protection of these communities will depend on a regular schedule of prescribed burning to maintain the necessary sandhill conditions. The recent introduction of prescribed burning to the Blackwater Ecologic Preserve has resulted in the re-emergence of some species not found here since natural fires were suppressed. Historic records indicate the presence of numerous rare species in these sandhills; some may reappear with continued management, prescribed burns, and protection from disturbance.

References

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For more information, contact the Department of Conservation and Recreation.

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This fact sheet was funded in part by the Department of Environmental Quality's Coastal Resources Management Program through Grant #NA270Z0312-01 of the National Oceanic and Atmospheric Administration Office of Coastal Resource Management Act of 1972 as amended.